

REMARKS

Claims 1-5, 7-8, 11-16, 18-19, and 28-31 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Eguchi in view of Heuberger. Applicant respectfully traverses the rejection.

Applicant respectfully submits that neither Eguchi nor Heuberger, alone or in combination, teaches or suggests at least a generalized FIR filter for generating control signals for reducing noise from a noise source, where the generalized FIR filter includes at least one generalized (orthonormal) basis function, as defined in independent claim 1 (and their dependent claims 2-5, 7-8, 11, and 28-29) and independent claim 12 (and their dependent claims 13-16, 18-19, and 30-31).

The rejection relies on the Office Action's assertion that one of ordinary skill in the art would look to Heuberger to modify the FIR filter in Eguchi to use a generalized (orthonormal) basis function. The alleged reason for such a modification is to create optimal coefficients for the FIR filter to improve accuracy of active noise control for an active noise control apparatus. Applicant respectfully traverses this statement for at least the reason that one of ordinary skill in the art would not find it obvious, absent impermissible hindsight, to modify the FIR filter of Eguchi using the teachings of Heuberger to provide active noise control.

Even though Eguchi teaches an FIR filter and Heuberger appears to teach orthonormal basis functions for use in FIR generally, neither Eguchi nor Heuberger teaches or suggest a way to apply the orthonormal basis functions in Heuberger to an FIR filter for active noise control with predictable results. For example, neither Eguchi nor Heuberger appears to consider how to provide (e.g., select) orthonormal basis functions particularly for an FIR in an active noise control apparatus or method, as opposed to a basis function for FIRs in general. On the other hand, Applicant has discovered that using information such as prior knowledge of sound dynamics to select such

orthonormal basis functions provides a way to employ these functions in an FIR filter for active noise control.

Absent a teaching for providing an orthonormal basis function for an FIR filter for active noise control, the alleged goal of generating optimized parameters, which is the motivation suggested by the Office Action, would appear to be more applicable to coefficients for the tapped linear filter of Eguchi rather than to coefficients for an FIR filter using orthonormal basis functions. As described in the present application, if there is no selection of an orthonormal basis function, the FIR filter can take the form of a linear FIR filter.

The Office Action's Response to Arguments states that utilizing a generalized FIR filter including at least one generalized or orthonormal basis function as shown by Heuberger, to modify the FIR filter shown by Eguchi, with the advantages as described in Heuberger for the general linear system of Eguchi would have been considered in the knowledge generally available to one of ordinary skill in the art when the references of Eguchi and Heuberger are available. Applicant respectfully traverses this statement, at least because the combined teachings of Eguchi and Heuberger still fails to teach or suggest a way to modify the FIR filter of Eguchi using an orthonormal basis function with predictable results, at least because Heuberger fails to teach a way to provide an orthonormal basis function for an FIR filter used for active noise control.

For at least the above reasons, Applicant respectfully submits that claims 1-5, 7-8, 11-16, 18-19, and 28-31 are allowable over the references of record, including Eguchi and Heuberger. Applicant thus requests reconsideration and withdrawal of the rejection.

The Examiner has indicated that claims 6, 9-10, 17, and 20-27 are allowable. Applicant acknowledges and appreciates this statement.

For at least the above reasons, Applicant respectfully submits that this case is in condition for allowance, which is respectfully requested. The Examiner is invited to contact Applicant's attorney if a telephone interview would expedite prosecution.

Respectfully submitted,
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